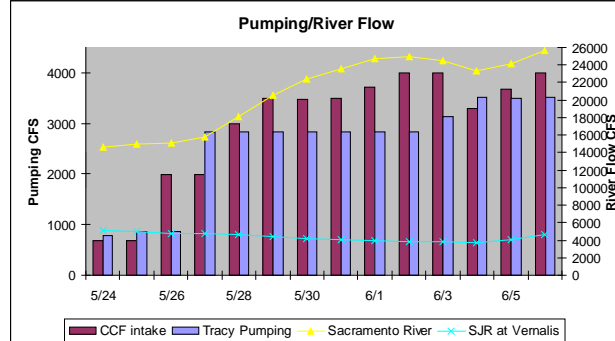
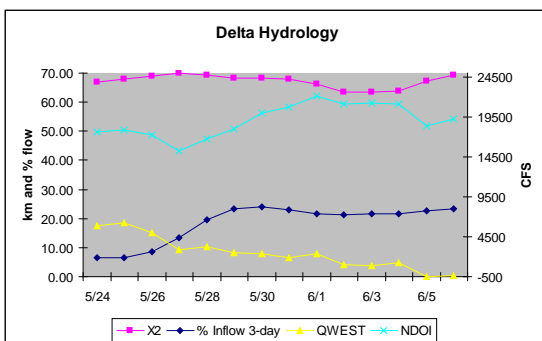
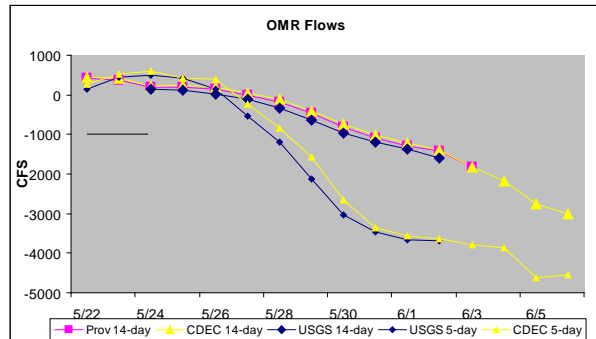
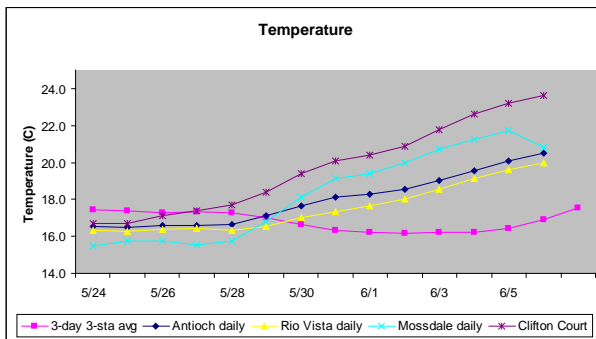


Recommendation for the week of June 7, 2010:

The SWG recommended -5000 cfs OMR flow, based upon the absence of salvage since May 21 and the latest survey data, indicating that the overall risk of entrainment is currently low. The Working Group will continue to monitor salvage, survey data, and hydrological conditions and will reconvene June 14.

1) Current environmental data.

- **Water temperature** for the 3 station average is 20.3°C. The three-day average at Clifton Court Forebay is 23.1°C.
- **OMR** USGS 14-day and 5-day tidally-averaged OMR as of June 2 is, respectively, -1609 cfs and -3700 cfs. The 14-day and 5-day OMR average estimate from CDEC as of June 6 is, respectively, -3021 cfs and -4537 cfs. The 14-day and 5-day provisional estimate of OMR flow were unavailable. USGS had technical difficulties with one of the OMR stations the week of May 31. These difficulties resulted in potentially inaccurate readings. Therefore, the Working Group was notified that the OMR data reported here may not be entirely accurate.
- **Flow** Sacramento River inflow is 25691 cfs and San Joaquin 4658 cfs. X₂ is 69.22km. As of June 6, E/I ratio is 23.4%, QWEST is -379 cfs and NDOI is 19207 cfs. The graphs below show the most recent trends in Delta hydrology and water quality that were evaluated by the Working Group.



2) Delta fish monitoring:

20mm Survey #6 was in the field May 24 through 27. All tows have been processed for the Sacramento River, confluence, and central and south Delta stations, while 21 of 51 tows have been processed for Suisun Bay. To date, 170 juvenile delta smelt have been counted. One delta smelt was collected at station 815, in the central Delta. Lengths range from 8 to 34mm, with an average of about 20mm, which is the optimal size for detectability in the 20mm Survey gear. 20mm Survey #7 is in the field this week. The first Summer Tow-net Survey will begin June 14. The final Spring Kodiak Trawl survey for the season (#5) was in the field May 3 through 5. Results for both SKT #5 and 20mm Survey 5 were reported at the SWG on May 24. Results from larval surveys, SKT, and 20mm Surveys are available online at: <http://www.delta.dfg.ca.gov/delta>

3) Salvage

As of June 6, juvenile delta smelt salvage was 23. The total authorized take for juveniles (> 20 mm) for May under the biological opinion was 333, expanded. The total authorized take for juveniles (> 20 mm) for June under the biological opinion is 682, expanded. The Concern Level for June is 561. Larval sampling has been discontinued at the CVP and continues at the SWP fish facilities. Delta smelt larvae were detected at the CVP on May 12. Longfin smelt larvae were detected at the CVP on April 18.

4) Expected Project Operations

Both the CVP and SWP expect to operate to maintain the -5000 cfs OMR flow as determined by the Service under RPA Action 3.

5) Particle Tracking Modeling

The Working Group did not request PTM runs for this week.

6) Discussion for Recommendation

The Working Group reviewed and discussed all relevant data from fish surveys, Delta monitoring, salvage, and planned Project operations.

The juvenile protective phase of the biological opinion (RPA Component 2; Action 3 in Attachment B) is in effect. This action will continue until June 30 or when the 3-day mean water temperature at Clifton Court Forebay reaches 25⁰C, whichever occurs earlier.

Component 2, Action 3 of the biological opinion, which is intended to protect larvae and juvenile delta smelt, includes a range of OMR flow from -1250 cfs to -5000 cfs. The BO provides guidance for the assessment of the risk of entrainment of larvae and juveniles and for determining the appropriately-protective OMR flows within that range for any given week. The BO (pp 353-354) specifies that if entrainment risk is low, OMR flows could be expected to

remain as negative as -5000 cfs, but if entrainment risk is higher, OMR flows would be set so as to reduce that risk. The risk factors are (1) evidence (i.e., from survey data) that delta smelt are present in the South or Central Delta, and (2) evidence of ongoing entrainment.

The Working Group noted that cumulative juvenile delta smelt salvage has been low (23 expanded salvage), with no reported salvage since May 21. Additionally, the results from the 20mm Survey #6 provide evidence that the risk of entrainment of larval and juvenile delta smelt is likely low. Only one delta smelt was detected in the interior Delta, at station 815. The Working Group noted that the expected pulse in salvage following an increase in pumping had not yet occurred, although members noted that entrainment is probably occurring at an undetectable level. As hydrology, pumping, and the tidal cycle changes, the Working Group expects a pulse of detectable salvage. Neither the timing nor the magnitude of this pulse can be predicted.

The San Joaquin River is anticipated to remain between 3800 and 4500cfs at Vernalis for this week, and the Working Group noted that this is anticipated to assist juvenile delta smelt to move downstream to their rearing areas in the low-salinity zone.

Based upon the low overall estimate of the risk of entrainment, the Working Group recommended that the Projects continue to manage to an OMR no more negative than -5000 cfs.

The Working Group noted that longfin smelt distribution is largely westward of the confluence and outside of the influence of the pumping facilities.

Next Meeting: Monday, June 14, 2010 at 10 am.